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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,285	09/08/2006	Joseph Arnold Paul Maria Simmelink	4662-206	4086
23117 7590 01/30/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
EDWARDS, NEWTON O				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
01/30/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/584,285

**Applicant(s)**

SIMMELINK ET AL.

**Examiner**

N. EDWARDS

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/19/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 and 20-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 13-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 6/26/06 12/19/08

1. Claims 13-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 overall is indefinite and vague since 1) it is missing a transition phrase and 2) "IV 8-40 l/g" is given little to no patentable weight since it describes the polyethylene as a liquid when the yarn defines a solid. Correction is required.

Claim 18 overall is indefinite since it is written in aggregation with claim 1. The claim fails to convey how the solid yarn of claim 1 can have less than 150 ppm of residual solvent at a boiling point of less than 275 degree C as a solid yarn.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13, 14, and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kavesh (US 6,448,359).

For the record, the tensile strength (also called tenacity) of claim 13 is about 5.2 GPA (which is a tenacity of about 35 g/d when converted).

Kavesh teaches a polyethylene yarn having a tenacity of at least about 35 g/d. See claim 1 of Kavesh for example. It is noted Kavesh further teaches IV (intrinsic viscosity) for polyethylene for a liquid of 4 dl/g to 40 dl/g at col. 1 lines 40-55, for example.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 13, 14, and 19 are rejected under 35 U.S.C. 102(b or e) as being clearly anticipated by Kavesh'173 (WO 01/73137) or China 1,432,077 .

Kavesh'173 and China is applied for the same reasons given above for Kavesh since there disclosure are substantially the same and in the same patent family.

5. Claim 13, 17, and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kavesh (US 4,413,110).

For the record when n=200 filament the tensile strength (other wise called tenacity) of claim 13 is about 4.3 GPA to 4.8 GPA ( which is a tenacity of about 29 g/d to 32 g/d when converted).

Kavesh teach a polyethylene yarn (fibers) having a tenacity of at least about 20 g/d to greater than about 30 g/d. See claims 1 and 2 and abstract.

6. Claims 13, 14, 15, 16, 17, 18, 19 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Simmelink (US 6,916,533).

Simmelink, a **DSM** Netherlands patent, teaches a polyolefin yarn (fibers) having a tensile strength of at least 26cN/dtex (which is at least 29.5g/d when converted) and fibers contain 0.05-5% wt solvents (which meet claim 18). Simmelink further teaches

that the fibers in the yarn have has a low creep ( which meet claim 16). See claim 1 for example o Simmelink

Regarding the issue of enthalpy of claim 15, the Primary Examiner has a reason to believe that Simmelink's polyolefin yarn inherently possess the enthalpy as claims due to the same structural identity (tenacity, creep, composition) as claimed.

The cited patent disclose that state of the prior art.

Any inquiry concerning this communication should be directed to Primary Examiner Edwards at telephone number (571)272-1521.

/N Edwards/  
Primary Examiner  
Art Unit 1794